

CLAIMS

What is claimed is:

1. A stent with a tubular support frame (2) that can be widened out from an initial state (A) into a support state (S), in which the support state (2) consists of at least two annular segments (3 – 6) that are formed by struts (7, 8, 9, 10) that endlessly follow each other in a corrugated manner via transitional sections (1, 12) and in which adjacent annular segments (3 – 6) are coupled by connectors (13), characterized in that every second front transitional section (12) on the end-side annular segments (3; 6), viewed in the direction of the longitudinal axis (L) of the stent, has a widened head end (18) that projects axially opposite the adjacent transitional sections (11) and has a convexly rounded front section (19) and concavely rounded throat sections (20, 21) between the head end (18) and the struts (9, 10) connected to the head end (18).
1. 2. The stent according to Claim 1, characterized in that the head ends (18) are configured in a mushroom shape and that the convex front sections (19) and the concave throat sections (20, 21) are connected to each other by rounded edge sections (22, 23).
1. 3. The stent according to Claim 1 or 2, characterized in that the throat sections (20, 21) extend at least in areas over the edge-side transitional sections (11) of the adjacent struts (7, 8) in the initial state (A).
1. 4. The stent according to one of Claims 1 to 3, characterized in that deflection elements (24, 25) for a thread looping around the outside of the support frame (2) are arranged on the end-side annular

4 segments (3, 6), viewed in the direction of the longitudinal axis (L) of  
5 the stent.

1       5. The stent according to one of Claims 1 to 4, characterized  
2 in that each connector (13, 13') is designed like a strut and has a  
3 longitudinal section (14, 14') running substantially parallel to the  
4 longitudinal axis L of the stent and comprises a compensation section  
5 (15, 15') aligned transversally to the latter and configured in a U or V  
6 shape.

1       6. The stent according to Claim 5, characterized in that the  
2 U-shaped compensation sections (15, 15') of the connectors (13, 13')  
3 are arranged in the area (16) between two axially adjacent, spaced  
4 annular segments (3, 4, 5, 6).

1       7. The stent according to one of Claims 1 to 6, characterized  
2 in that the connectors (13, 13') extend out from the ridge area (17) of  
3 two struts (7, 8) of an annular segment (4, 5) between two struts (7, 8) of  
4 the adjacent annular segment (3, 4, 5, 6) up to the transitional section  
5 (11) of these struts (7, 8).

1       8. The stent according to one of Claims 1 to 7, characterized  
2 in that the connectors (13, 13') are aligned in axial succession.